

30. A permanent magnet electric machine with reduced cogging torque, comprising:
a rotor; and
a plurality of axial rotor sections defined on a radially outer surface of said rotor,

wherein each of said axial rotor sections include a set of permanent magnets that are initially attached in an unmagnetized state and that have opposite edges that are aligned with an axis of said rotor,

wherein said permanent magnets of said rotor include at least one substantially unmagnetized stair step area and at least one straight skewed unmagnetized area.

31. The permanent magnet electric machine of claim ³⁰~~31~~ wherein said unmagnetized stair step area and said unmagnetized straight skewed area overlies one another thus forming an unmagnetized area with clipping.